A CASE OF LYMPHOSARCOMA OF THE SMALL INTESTINE

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THE FOLLOWING CASE of lymphosarcoma of the small intestine is considered worthy of record, not only because it exemplifies many of the characteristic features of this condition but also because it serves as a reminder of a potential cause of recurrent melaena which might otherwise be overlooked.

Case Report

Mr. J. M. S., a surveyor aged 45, suffered from indigestion for many years. During the war his dyspepsia was investigated on several occasions and in Cairo in 1944 he had a barium meal examination, but no evidence of peptic ulcer was discovered. Because of the repeated negative findings at clinical and radiological examination he was considered to be suffering from nervous dyspepsia.

At times he complained of episodes of colicky abdominal pain and he himself thought that he might be suffering from appendix colic. It was not until November 1958, that the pattern of his symptoms changed and he observed that the abdominal colic was followed by vomiting and the passage of loose bowel motions. On the 4th March, 1959, while at work at his office desk he felt faint and subsequently had melaena. He was admitted to St. Thomas' Hospital at which time his haemoglobin had fallen to 70 per cent., but with conservative management on an ulcer regime his condition rapidly improved and after two weeks the haemoglobin level reached 84 per cent. Barium meal showed pylorospasm but no peptic ulcer.

Later the same year, on 26th October, he was admitted to Croydon General Hospital with a more severe episode of melaena, in which his haemoglobin fell to 57 per cent. and a transfusion of four pints of blood was given. Barium meal again did not show peptic ulceration, but in view of the long history of dyspepsia with repeated melaena and occasional episodes of hunger pain, it was considered likely that he was suffering from duodenal ulcer. He was discharged from hospital after three weeks on a strict post ulcer regime.

During the period 1960 to 1963, he continued to have episodes of colicky abdominal pain with sickness and diarrhoea. This occurred as often as six times a year, and during many, but not all, of these attacks he had melaena. He did not seek further medical advice until the 10th December, 1963, when he was admitted during an asymptomatic period to the Friarage Hospital, Northallerton, for investigation. The results of these investigations were as follows:

Barium meal and follow through examination: The oesophageal hiatus was normal and there was no oesophageal reflux on tilting the patient. The stomach and duodenum were normal and there was no evidence of peptic ulcer. Using a small bowel technique no abnormality was detected in the jejunum or ileum and centainly nothing to suggest Crohn's disease.

Gastric secretion tests: The response to histamine, and the level of all night secretions were slightly, but not conspicuously, above the normally accepted levels.

Oesophagoscopy and Gastroscopy: These examinations conducted under general anaesthesia showed no abnormality in either oesophagus or stomach.

Faecal occult blood tests: Three successive stool examinations were negative for occult blood.

Clinical examination at this time showed no abnormality whatever on careful abdominal examination. The possibility that the attacks of pain and diarrhoea were due to food allergy was considered, but there was no supporting evidence for this conjecture. It was decided that the abdomen should be explored as soon as the patient's professional commitments would allow his admission.

While awaiting re-admission he again collapsed in the street in Newcastle-upon-Tyne and was admitted to the Royal Victoria Infirmary as an emergency on 20th November, 1964. The clinical presentation was the same as that in the previous attacks except that on this occasion he passed some red blood per rectum as well as the tarry stools typical of all the previous episodes.

Abdominal examination on admission, showed a suspicion of a mass in the right iliac fossa which significantly had disappeared the following day by which time the patient's pain had cleared up. This was the first occasion on which the possibility of intussusception was considered. Barium enema at this time showed no abnormality after routine blood transfusion. The patient made as good a recovery as on previous occasions and was discharged ten days after admission.

After convalescence he was admitted to Darlington Memorial Hospital for laparotomy.

Operation (5th December, 1964): Under general anaesthesia the abdomen was explored through a lower right paramedian incision. At a position near the middle of the small gut there were two separate tumour masses involving the entire gut wall and separated by a portion of normal looking, but slightly dilated small intestine. In the mesentery, adjacent to the two tumours there were enlarged, soft and congested lymph nodes, with occasional calcified nodules suggestive of former tuberculous mesenteric lymphadenitis. A wide resection of the involved bowel segment together with the related lpmyh nodes was carried out, and intestinal continuity was restored by end-to-end anastomosis. Post-operative recovery was uneventful.

The Specimen: The specimen consisted of 50 cms. of small intestine in which there were two distinct portions, each 7 cms. in length, in which there was gross thickening of the bowel wall. The tumours encroached on, and surrounded the lumen of the bowel. The segment of gut between the two lesions measured 14 cms. and showed some dilatation though the mucosa appeared normal. In the root of the mesentery there were enlarged, soft lymph nodes and old calcified tuberculous foci.

On microscopy the whole thickness of the two affected segments of small intestine were infiltrated by sheets of small round cells. The lymph glands in the root of the mesentery had likewise lost their normal architecture which was similarly replaced by sheets of uniform small round cells. The appearance was typical of lymphosarcoma of small intestine.

Discussion

The outstanding feature of this case was the long dyspeptic history, with episodes of melaena which had lead to the provisional diagnosis of duodenal ulcer, in spite of repeated negative findings on barium meal examination. That tumours of the small bowel may cause gastric upset with pain and sickness at variable intervals after meals has been mentioned by Frazer (1945), but the association of these symptoms with melaena, and negative findings on radiological examination of the small bowel, supported the provisional diagnosis of "post bulbar" duodenal ulcer which is notoriously difficult to demonstrate radiologically. The long duration of symptoms over a period of at least six years was unexpected in a case of malignant disease, though review of the literature shows that similar cases have been recorded by Cape and Grant (1942).

The occurrence of colicky abdominal pain and diarrhoea is a constantly recorded feature of the condition (Lewis, 1934), while alternating constipation and diarrhoea is said to be common (Ullman Abeshouse, 1932).

Sarcoma of small intestine though a rare condition has been recorded sufficiently often to enable its age and sex incidence to be established. The condition is commoner in males than in females, the ratio of frequency being 10-3, and while the condition may occur at any time from infancy to old age, the maximum incidence is in the fourth decade (Marcuse and Stout, 1950). In these respects the recorded case was typical in age and sex incidence.

This case showed the unusual feature of two discrete tumours with apparently healthy gut in the interval between. Both were of the tubular type as distinct from the annular type which tends to present with obstruction, and the polypoid type which shows a tendency to intussusception. In actual fact the shape of both tumours resembled the "aneurysmal dilatation" described by Raiford (1933) in which "the tumour resembling a hollow sphere with a moderate degree of construction at either end".

Microscopically the lesion was shown to be a lymphosarcoma and is the commonest type of growth. Only 6.8 per cent. being myogenous in origin. (Brink and Laing, 1933).

In general the prognosis is said to be bad (Wakeley, 1932), but cases of survival for seven (Mayo and Nettrour, 1936) or even for twenty years have been recorded (Cameron, 1938). In view of the long duration of the symptoms and a wide resection with no microscopic evidence of residual metastasis the outlook in this case can be regarded with guarded optimism.

Comment

The case history here and a review of the literature emphasises that in cases of vague dyspepsia with unexplained melaena the possibility of a sarcoma of the small intestine should be considered, and early laparotomy advised.

We would like to express our thanks to Dr. W. Irwin, Consultant Radiologist, for the radiological reports, to Dr. J. Tregillus, Consultant Pathologist, for the section reports, and to Dr. P. N. Coleman for photomicrographs.

References

Brink, J. R. and Laing, G. H. (1933). *Arch. Path.*, **15**, 316.
Cameron, A. L. (1938). *Ann. Surg.*, **108**, 203.
Cope, V. and Grant, H. M. (1942). *Ann. Surg.*, **20**, 357.
Fraser, K. (1945). *Brit. J. Surg.*, **32**, 479.
Lewis, D. L. (1939). *Brit. J. Surg.*, **27**, 540.
Marcuse, P. M. and Stout, A. P. (1950). *Cancer*, **3**, 471.
Mayo, G. W. and Mettrour, W. S. (1936). *Coll. Papers Mayo Clinic*, **32**, 312.
Raiford, T. S. (1933). *Amer. J. Cancer*, **18**, 803.
Ullman, A. and Abeshouse, B. S. (1932). *Ann. Surg.*, **95** 868.
Wakeley, C. P. G. (1932). *Lancet*, **2**, 1158.

BOOK REVIEW

PAEDIATRIC PATHOLOGY. By Daniel Stowens, M.D. Second Edition. (Pp xi+847; Illustrated, 212s.). Baltimore: Williams & Wilkins, Edinburgh and London: E. & S. Livingstone, 1966.

The appearance of a second edition of this important and valuable book seven years after the first is welcomed. Dr. Stowens in his preface expresses pleasure at the opportunity it gives him to correct ideas which, as he says, should never be held sacred or inviolable, and to present new concepts.

A book such as this must consider not only the expert reader but also the junior pathologist and the clinician. It is very difficult for anyone to gain an insight into the conflicting views current on many subjects. The question is whether in a book of this size and authority the author should try to present these conflicting views with citation in the text of the key references, or whether he is entitled to present views and ideas with no clear indication as to whether they are those held by many or some workers or by himself alone. There is often little discussion of the interplay of conflicting opinions in this book. Examples of this might be the author's discussion of hyaline membrane disease and of cot deaths. The expert in the field is interested, stimulated or annoyed by the clear presentation of the author's views, but the less experienced reader is inadequately informed; and no number of references at the end of a chapter can take the place of an analytical review of existing knowledge. The omission of an analysis of the literature and the lack of citation of references in the text of course makes for easier revision of a textbook, but the reviewer considers it is rarely possible to allow that such a textbook is one of the highest scholarship. It can only be admitted as such if it concerns a new and limited field of knowledge which the author has personally explored fully and in depth.

This book must also raise the question of the right of paediatric pathology to be considered a separate division of pathology. The descriptive morphology of many of the conditions considered is adequately or even better given in the larger textbooks of general and special pathology. This book fails to define a biological basis for separating the pathology of this period of life from pathology in general. This failure of a fundamental approach is especially apparent in the chapters on the newborn and on the placenta where discussion under isolated headings may sometimes inform factually but will not increase fundamental understanding.

Despite limitations this is a valuable book and should be available wherever the pathology of children is studied. It will provide help on many problems. It is beautifully illustrated though perhaps too largely by microphotographs. There are numerous references grouped under subject headings at the ends of the chapters. Some heavier pruning of older references might have been useful and there are some peculiar inclusions and omissions, but the range is wide and representative. At present no better book on paediatric pathology exists.

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